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ABSTRACT

Televised portrayals of variables that are related to educational and occupational aspirations and educational motivation have the potential to influence viewers' attitudes, expectations, and behaviors in these domains. In order to test this premise, a study assessed messages about these variables and about drug use in the prime-time television programs on ABC, CBS, and NBC most popular with children (aged 6-11) and teenagers (12-17) in the United States. Fifty-one programs for children and teens, selected on the basis of Nielsen ratings of the top 20 prime-time programs in November 1985 and November 1986, were analyzed with a mixture of quantitative and qualitative content analysis and elements of audience research. Results showed programs can be placed in two categories: (1) programs in which the producers seemed to be making a conscious effort to include some content of special interest to, and with potential benefit for, children and teens, including, but not limited to, messages concerning educational and vocational motivations and aspirations and achievement; and (2) programs in which there is little if any focus on learning in the broad sense or education in the narrow sense. Programs in both categories have considerable sex stereotyping, contain little information about occupations and schools, and focus on middle and upper socio-economic status and materialism. (Five tables of data are included and 110 references are appended.) (MS)

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Final Report

Messages about Education in TV Programs Popular with Children and Teenagers

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Summary

Messages About Education in TV Programs Popular with Children and Teenagers

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Purposes: 1. To assess messages about educational and occupational motivations, aspirations, and achievement in the prime-time TV programs on ABC, CBS, and NBC most popular with children (aged 6-11) and teenagers (12-17) in the U.S.A.
2. To assess messages about drug use in the same programs.

Program sample: Top 20 programs for children and teens, based on Nielsen ratings for November 1985 and 1986. Analyses based on 2 samples: a) basic = 51 episodes total, maximum of 2 (1985 & 1986-87) per program; b) multiple episode = 29 episodes total, from 6 programs; Reliability sample = 29 programs.

Method: Mixture of quantitative and qualitative content analysis, with elements of audience research. Trained coders watch the program once and then answer structured and open-ended questions, without stopping or replaying the videotape.

Results: 1. These popular programs contain two distinct subcategories or genres:

A. programs focused in part on education:

a) almost all comedies
b) almost all messages re: education in the scholastic sense or learning in the broad sense are in these programs
c) education messages are positive and portrayed responsibly, but usually are not a major focus
d) usually contain child and/or teen characters and people in parent-like roles
e) low in physical aggression and violence

B. programs not focused on education

a) half comedies, half detective/crime/action-adventure
b) little if any focus on learning in broad sense or education in narrow sense
c) less often contain child and/or teen characters or people in parent-like roles
d) high in physical aggression, violence

2. ways in which the two categories are similar

a) little portrayal of drugs
b) considerable sex stereotyping
c) focus on middle and upper SES, materialism
d) little information about occupations
e) ethnic minorities included but few in numbers and portrayed as lacking power, authority
f) little information about schools

What messages about education are portrayed in the prime-time TV programs most popular with children and teenagers in the U.S.A.? In particular, how are educational and occupational aspirations, educational motivation, and the variables known to influence them portrayed? The research described in this report was designed to answer these questions.

Theoretical and Methodological Overview

A major premise behind this study is that televised portrayals of variables that are related to educational and occupational aspirations and educational motivation have the potential to influence viewers' attitudes, expectations, and behaviors in these domains. This could occur via several avenues. We find a psychological information processing theory called schema theory (Schank & Abelson, 1977) particularly helpful in conceptualizing the effects of TV content. Schemata are self-relevant attitudes, beliefs, and expectations regarding the characteristics and outcomes of events. In effect, they are filters or stereotypes which direct attention, perceptions, and memory. For example, Cordua, McGraw, and Drabman (1979) found that more than half the children who had seen a movie about a female physician and a male nurse recalled the opposite, and only 22% identified both correctly. In contrast, all children who saw a film about a male doctor and a female nurse recalled both correctly. The children apparently processed the information in the film via their gender schemata, and either didn't notice the discrepancy initially or altered their memory to be consistent with their gender schemata. These schemata are acquired via both direct experience (e.g., doctors and nurses encountered in real life) and indirect experience (e.g., hearing doctors referred to as he and nurses as she, as well as seeing and hearing media portrayals). Subsequent experience with similar events or information is mediated by the cognitive representation of the earlier

experience (the schema), and once established, schemata are very resistant to change. Experiences are processed via a cognitive matching procedure according to their similarity to preexisting cognitive schemata. If the match between an event and a preexisting schema is good, the schema is upheld and remains relatively unchanged. However, if an event presents some unique or less familiar characteristic, or contradicts the schema, various outcomes are possible. Most likely the discrepancy will not be noticed; the match will be "good enough". If it is noticed, the discrepancy may be processed as an exception. For example, a person who holds the belief that a particular group is lazy and encounters a hard-working member of that group will tend to believe the person is exceptional rather than change their stereotype about the group.

Because schemata tend to ignore discrepant information or process it incorrectly, they probably are most susceptible to influence when they are initially being formed. Thus early childhood would be particularly important for the development of attitudes, beliefs, and stereotypes. Since children in North America spend 3 to 4 hours a day with TV, it probably plays a very important role for both the initial formation and subsequent maintenance of their schemata about education. There is some evidence that schemata acquired from TV may be particularly powerful. Meringoff (1980) found that young children tended to base their inferences on their own personal experiences when a story was read to them, but relied more heavily on visually presented material in the (same) story when it was shown on television. Janis (1980) argues that to the extent that messages in TV content are repeated or redundant, the potentially cumulative effects of television on the acquisition and maintenance of an individual's schemata may be substantial. Withey (1980) contends that television may in addition influence viewers indirectly by

proposing acceptable aspirations and prescribing precedents. That is, social institutions and the broader culture may be affected, not just individuals via explicit messages they interpret.

A second important avenue via which TV viewers' educational and occupational aspirations, motivations, and behavior could be influenced is observational learning or modelling. Bandura (1977) points out that learning involves two steps, acquisition and performance. Only performance can be observed, and it is the focus of most research on modelling. Williams (1986) suggests that the acquisition phase of the process of learning from TV content may consist of constructing a new schema or modifying existing schemata while processing new information. Comstock (1980) has summarized the evidence that information or behavior acquired from TV will actually be performed. Four categories of factors increase the likelihood of performance: social approval for the model and/or behavior in the filmed material; the successfulness or efficacy of the behavior; the relevance of the behavior and the model's characteristics to the viewer; and whether the portrayal optimizes arousal for the viewer.

Salomon (1979) has described a third avenue via which TV content may affect the viewing audience. His approach recognizes the interaction between what he calls the "symbol systems" of television and the cognitive aspects of the individual viewer. The concept of a symbol system is a useful descriptive device reflecting the characteristics of the television medium. TV can have apparent or surface-level meanings, but symbols also may interact to create a more elaborate and less obvious psychological effect. Symbols are socially agreed upon meanings applied to situations, events, or physical objects, but the concept of symbol also encompasses the possibility of individual differences in experiences and/or knowledge of symbol meanings. Thus, the

content of TV programming interacts with the characteristics of the individual including factors such as cognitive expectations and individual experience.

We agree with Salomon (1979) that the effects of media content, including education-related content, are the result of the interaction of characteristics of the message with characteristics of the receiver. Some researchers contend that since receiver characteristics are part of the process, content analysis is a waste of time and only audience research should be conducted. Others contend that if viewer characteristics interact with message content, all viewers will receive different messages. For that reason, they prefer qualitative content analysis and a phenomenological approach over more quantitative approaches and concern with reliability. We do not agree with either point of view, and have developed a methodology that lies somewhere between content analysis and audience research, though closer to the former than the latter. It also lies between the qualitative and quantitative approaches to content analysis (Rosengren, 1981) in the following ways. It is specifically designed to focus at a macro-level rather than a micro-level. The unit of analysis is the program, not individual characters or incidents. For example, rather than counting the number of male and female characters, the coder answers the following question at the end of the program: Were the prominent characters all male, mostly male with some important females, an even mix, mostly female with some important males, or all female? That kind of descriptive information is more characteristic of the quantitative genre of content analysis, but more macroscopic than is typical. The following examples of evaluative questions in our coding system are more characteristic of the qualitative genre of content analysis. Were the powerful/authoritative/ knowledgeable characters all male, mostly male with some important females, etc.? The goal is not merely to quantitatively

describe manifest TV content (e.g., whether women or studying was portrayed and whether the focus was major, minor, or a passing reference), but also to assess the latent messages associated with that content (e.g., whether studying was portrayed positively, in a balanced or mixed way, or negatively). As another example, was use of alcohol or drugs, glamorous/cool or unglamorous/uncool?

As we noted earlier, in some ways our approach departs from both the quantitative and qualitative genres of content analysis and moves in the direction of audience research. Whereas both content approaches often focus on the specific incidents in a program via which a message is communicated, our coders focus more on take-home messages or final impressions. The coders are not allowed to stop the videotape or replay it, but simply watch it once through and then answer a series of questions. With a few exceptions they must rely on their memory. They are not allowed to take notes during the program except to list the prominent female and male characters. They may consult these lists when answering questions at the end of the program. This is enough of a memory jog to ensure adequate reliability.

We do not mean to imply that our focus on take-home messages means we are conducting audience research, only that our method lies somewhere between content analysis and audience research. Obviously, once coders have been trained they know what questions they will be asked and undoubtedly notice those facets of a program more consistently than would regular viewers. As Salomon (1983) has demonstrated, North Americans watch TV with little concentration (or, as he says, AIME, amount of invested mental effort). They also time-share TV with many other activities and leave the room freqently, as studies in which families have been videotaped while watching TV demonstrate (e.g., Anderson & Lorch, 1983; the current Independent Broadcasting Authority

study in the U.K.). The result is that different individuals attend to and notice different parts of programs, in part because of factors unrelated to the program content (e.g., being tired, leaving the room to attend to a child). Of course, they also attend to and notice different parts of programs in part because of their characteristics as an individual (e.g., teenager with low self-esteem) or group member (e.g., poor versus rich, feminist versus sexist). One disadvantage of audience research involving interviews with regular viewers is that it can only provide information about their recollections and reactions at that point. Information may have been acquired but not recalled until later when some incident or cue triggers a memory. For these and other reasons we agree with Morley (1980) that both content analysis and audience research are needed. The former establishes what messages could be acquired and the latter establishes the conditions under which they are acquired (by whom, in what contexts, under what conditions, etc.).

Morley (1980) argues that the TV message is a complex sign, in which a preferred meaning has been inscribed, but which retains the potential to be decoded in a different manner and thus to communicate a different meaning; it is a "structured polysemy". He contends that "all meanings do not exist 'equally' in the message: it has been structured in dominance, although its meaning can never be totally fixed or 'closed'. Further, the 'preferred reading' is itself part of the message..." (p. 10). We agree with this perspective, and briefly cite some supporting evidence from our research. If it were true that effects of messages are always specific to their interaction with particular individuals, it would not have been possible to establish reliability among the heterogeneous team of coders working on our previous project. Or, perhaps it would not have been possible for the more judgmental questions (. g., regarding the powerful/authoritative/ knowledgeable or the

acceptability/unacceptability of drug use) but would have been possible for more descriptive questions (e.g., preponderance of females versus males). Even then, however, one might predict that the preponderance of males might be noticed or judged differently by feminists versus traditionalists. We found instead that our coders were reliable during both the training period and later random checks on most questions. On a minority of questions, however, they were quite unreliable. For example, no matter how hard we tried to define categories and train our coders, they could not agree upon, "How would you best describe the political philosophy of this program?" The five possible answers were: apolitical, left-wing/liberal/socialist, center, right-wing/conservative/capitalist, definitely political but not identifiably left or right. In this case, and in some other instances, the coders' own personal views apparently created such strong filters that they could not reliably agree upon the program content. Based on this sort of evidence it is our contention that there are indeed some areas in which the decoding of messages is specific to groups or individual viewers, but there are many others (most, in our research) for which even a heterogeneous group of coders decode the messages similarly. Our research goal was to examine the more dominant messages of TV content, to use Morley's terms.

Review of Education Literature

Dramatic fiction programs on television can and sometimes do provide explicit or implicit messages about educational and occupational aspirations and educational motivation. They also may contain information about factors that have been shown in the education literature to influence these outcomes. Some television programs are intended from the onset to appeal to children and/or teens. Others are not originally aimed at youth but turn out to be popular with them. In both cases, producers have the opportunity to

incorporate messages about education. To what extent is this being done? Our attempts to answer this question began with a survey of the literature about educational and occupational aspirations, educational motivation, and a group of related variables. This evidence is summarized next and followed by a discussion of the range and type of variables that have been found to be related to or influence these outcomes. These findings from previous research were used, insofar as possible, to design the coding system we used to analyze the content of the TV programs most popular with children and teens in the U.S.A.

Educational and Occupational Aspirations

The educational and occupational aspiration variables are found in an area of social psychological research known as status attainment and social stratification (Blau & Duncan, 1967; Haller & Portes, 1973; Sewall & Hauser, 1976). Among those that are central for status attainment are educational attainment, occupational prestige, and income. Haller (1982) summarizes the essential premises of this tradition: at a time when young people are approaching the assumption of adult roles, they develop status specific concepts of themselves and others in their psychological environment.

Haller (1982) suggests that aspirations are formed in three ways: by imitation--adopting the status illustrated by models, by self-reflection--adjusting aspirations to correspond to performance in status related areas, and by adopting the status expectations one's definers hold for one. In research, peers have been found to serve as models while parents and teachers are definers (e.g., Picou & Carter, 1976). Young people may observe all three processes occurring for characters portrayed in television programs. In addition, in the case of imitation, the television characters themselves, particularly young men and women, are status aspiration models for young

viewers.

Not surprisingly, it has been demonstrated that educational aspirations influence educational attainment, that educational attainment influences occupational attainment, and that occupational aspirations influence occupational attainment (Blau & Duncan, 1967; Duncan, Featherman, & Duncan, 1972; Jencks, 1979; Sewell, Hauser, & Featherman, 1976). Since education and occupation are closely related, important messages pertaining to education may be implicit in occupational portrayals on television.

Educational Motivation

A second variable we may wish to be portrayed well on televison is educational motivation. It is one of four essential conditions of classroom learning (Walberg, 1980). Classroom learning is produced by motivation in interaction with student ability and quantity and quality of instruction. Classroom learning, or educational productivity, can be considered the dependent variable in this line of research. It is more specific than the educational aspiration and attainment variables referred to earlier, which usually denote grade level. In contrast, classroom learning includes measures of academic achievement (standardized test scores), achievement on curriculum tasks, ability for further learning, etc.

Ability and motivation are characteristics of the individual, whereas quantity and quality of instruction are characteristics of the instructional environment. All could be portrayed in television programs. This discussion will focus specifically on educational motivation because it refers to the characteristics students bring to the instructional setting other than ability and aptitude. Ames and Ames (1984) note that the work of McClelland (1955) and Atkinson (1954) on achievement motivation was a forerunner to the cognitive view of motivat. In education. When educational motivation is

considered from a cognitive perspective, it includes specific attributions of ability and effort, feelings of self-worth, beliefs and goals, and more general attributions and expectancies. In contrast to the social psychological research on status attainment, this research domain focuses primarily on attitudinal variables.

In most common psychological models of educational performance, motivation is an essential condition of learning outcomes (Haertel, Walberg, & Weinstein, 1983). However, these models range in the degree of specificity with which they describe motivation. The focus of some has been perseverance, that is, amount of time a student is willing to invest in mastering an objective (Carroll, 1963). Others emphasize student behaviors or attitudes that promote learning activities (Cooley & Leinhardt, 1975), and still others, predisposition toward learning (Bruner, 1966).

As indicated earlier, motivation is not the only critical factor for school learning. In testing a model of school learning among approximately 2,000 Australian school children over a 12 month period, Keeves (1986) found that initial achievement was the best predictor of later achievement. This is far from a surprising finding, but it does suggest that school achievement could itself be profitably modelled in television programs.

A comprehensive consideration of television's portrayal of factors importantly related to educational achievement must include several variables in addition to educational and occupational aspiration and educational motivation. Among them are career motivation, occupational concepts and information, information-seeking behavior, and academic achievement. Some are clearly related to the status attainment literature cited earlier, whereas others arise from different research traditions. They are included here not because they function in the same way in a causal chain as educational and

occupational aspirations, but because they have been considered to be significant dependent variables in previous research.

The Predictor Variables

This study focused on how a range of variables that have been found to influence educational and occupational aspirations and achievement are portrayed in television programs popular with young people. Among these predictors, background variables can be distinguished from intervening variables. Background variables, for example, ability and socioeconomic status, are important predictors of educational and occupational aspirations that operate relatively early in the causal chain. Intervening variables are so named because they mediate or transmit the effect of antecedent causal factors. They include the role of significant others and other events in the environment as well as cognitive and affective processes of the individuals themselves. The intervening variables are of particular interest in this study because, by contrast with background variables, they can be modified.

Background Variables

The background variables found to be the most important and consistent predictors of educational and occupational aspirations and attainment are socioeconomic status (SES), ability, and sex.

Socioeconomic status. There is consistent evidence that parents' SES is a significant predictor of the child's educational and occupational aspirations and eventual attainment (Blau & Duncan, 1967; Duncan, Featherman, & Duncan, 1972; Jencks et al., 1979; Sewell, Hauser, & Featherman, 1976; Tauberman, 1977). Essentially, this evidence indicates that children's aspirations and attainments tend to match the social class their parents represent. For example, Sewell and Hauser (1976) found that in the United States, higher SES children were 2.5 times more likely than lower SES children to continue their

education beyond high school, 4 times more likely to enter college, 6 times more likely to complete college, and 9 times more likely to receive some graduate or professional training.

In a review of 43 achievement motivation studies (recall that achievement motivation was a predecessor of the cognitive view of educational motivation), Cooper and Tom (1984) found converging evidence that higher SES is generally associated with higher need for achievement, with the caution that very high SES groups have not been studied extensively. Anglo-Americans (Whites) on average exhibit stronger needs for achievement than Afro-Americans (Blacks), with the qualification that SES has a much stronger effect than race.

In addition to the specific evidence regarding the role of SES for educational motivation and educational and occupational aspirations and attainment, a number of other studies point to the relationship between SES and other relevant variables such as vocational planning (Campbell & Parsons, 1973). This evidence is less consistent. For example, Jordaan and Heyde (1979) found that SES was not a significant predictor of vocational maturity among high school students.

Sex. A large body of evidence indicates that educational and occupational aspirations and other educational outcomes vary significantly according to sex (see reviews by Marini & Brinton, 1984; Reid & Stephens, 1985). For example, female students select occupations from a more restricted range (Hess-Biber, 1985) and see fewer occupations as suitable (Poole & Cooney, 1985) than do male students.

Young women's occupational aspirations are closely related to their views about marriage and motherhood (Gottfredson, 1981; Gurin, 1974; Tittle, 1982). Archer (1985), for example, found that female high school students were much more concerned than their male counterparts with how their future vocational

and familial roles and identities would fit together. One recent study indicates that the social and political changes occurring in North American society may be having some impact. Farmer (1983) found that the high school females she studied had higher career aspirations than the males, that males expected to share parenting and career roles, and that females considered a future career to be central to their roles as adults.

Block (1979) drew attention to the differential socialization boys and girls usually receive. Female socialization stresses nurturant and expressive roles and teaches women to strive for approval in the social area. Women socialized in this way may have lower levels of characteristics such as instrumentality, assertiveness, self-efficacy, and self-esteem that are required for occupational success (Gilligan, 1982; Hackett & Betz, 1981; Hoffman, 1972, 1977; Spence & Helmreich, 1978). Differential socialization of boys and girls occurs in the area of academic achievement as well as occupations. Rollins and Thomas (1979) reviewed research on the role of parents in the socialization of children and concluded that academic achievement for females was negatively valued in the U.S. Other researchers have found that parents consider it more important for sons than daughters to enroll in upper level mathematics courses, and that both the in-class and out-of-class math-related experiences of males and females are different (see Kimball, 1987, for a review).

Of course, early socialization is not the only factor contributing to sex-segregated occupations. As Jacobs (1987) point out, sex-typing of occupational pursuits is promoted in early childhood, reinforced by peer pressure in high school, buttressed in college and early jobs, and finally, reflected in the labor market itself. Following their thorough review of sex differences in occupational aspirations, Marini and Brinton (1984) concluded

that although socialization may influence individuals, institutional, structural, and historical factors may be required to explain sex segregation in the longer term.

Children experience sex-role socialization directly in their interactions with others. Via TV they also may see (or not see, and thus be naive about) occupational segregation in the "real world", other factors such as the difficulties women encounter in traditionally male occupations, tokenism and so on. Content analyses of sex-role portrayals on North American TV have yielded surprisingly consistent results and few fundamental changes over the past two decades (Kimball, 1986). Men outnumber women 2 or 3 to 1 and both sexes are portrayed in predominantly traditional gender roles.

Intervening Variables

Influence of significant others. A key variable in the educational and occupational aspiration literature is the influence of significant others, that is, people important to the individual (e.g., Sewell, Haller, & Portes, 1969). In essence, significant others mediate or transmit the effects of social class, sex, and race to the individual. They are therefore frequently studied in conjunction with one or more of the background variables.

The family is one group of significant others that has received specific attention with regard to children's educational aspirations and attainments. In a recent study of adolescent cohorts in the 1960s, 1970s, and 1980s, Sebald (1986) found that adolescents do seek their parents' advice regarding their future including education and career goals, while seeking the advice of peers for their current concerns such as clothing and interpersonal relationships. Seeking advice from parents about education and careers declined slightly in the 1970s, but recently it has regained much of its former position. Although some adolescents are unwilling to acknowledge the influence of parents on

career development, actual influence has been demonstrated in such areas as identification with parents (Hocks & Curry, 1983; Jackson & Mearа, 1977; Seginer, 1985; Tangri, 1972), parental support (Goodale & Hall, 1976; Lunneborg, 1982; Rollins & Thomas, 1979), and perceived parental influence (McClure & Piel, 1978; O'Neil, Ohelde, Tollefson, Barke, Piggott, & Watts, 1980).

Several researchers have found that high achieving females identify more strongly with their fathers than do low achieving females (Hocks & Curry, 1983; Seginer, 1985). Others have interpreted this as identification with the parent who is seen as powerful and successful (Bandura, 1977; Heilbrun, 1981).

The family is the first context in which competence, in the sense of self-efficacy and self-esteem (variables to be discussed later), is developed. It also is the first context in which resources for competence, for example, literacy, physical strength, and social skills, are conceptualized. Empirical evidence indicates that in high-competence family environments parents have a close and supportive relationship with their child (Rollins & Thomas, 1979), have high educational aspirations and expectations for the child (Henderson, 1981), provide assistance with school work (Henderson, 1981), use an authoritative rather than an authoritarian or permissive style of parenting (Baumrind, 1978), and family life is relatively free of overt conflict between members (Rutter, 1971; Emery, 1982). Both objective measures of SES and measures of interpersonal home environment have been found to be related to academic achievement (Amato & Ochiltree, 1986; Fotheringham & Creal, 1980; White, 1982).

Parents are not alone in influencing educational and occupational aspirations. Scritchfield and Picou (1982), for example, found that both Black and White secondary school students attributed influence to significant

others for both educational and occupational aspirations, but Black youths named proportionately more extended family members whereas White youths identified more male peers and adult friends and acquaintances. They concluded that for Blacks, the majority of relevant role models for education and occupations were external to their immediate interpersonal environment whereas for Whites relevant role models external to their immediate environment pertained only to occupations. Adult friends were the largest single source of educational models among White youth. For Blacks, teachers were the modal source of educational models.

Among the influence that comes from peers, Farmer (1980) found that community support, which included peer influence, was significant in the career motivation and achievement of adolescent women.

Student misbehavior and educational achievement. A significant relationship between student misbehavior and educational achievement has been established in the literature (e.g., Coleman, Hoffer, & Kilgour, 1982; Purkey & Smith, 1983; DiPrete, 1981; Baker, 1985). For example, Myers, Milne, Baker, and Ginsberg (1987) found that, among secondary school students, the relationship is transactional. Misbehavior causes poor academic performance which in turn causes misbehavior. As well, student misbehavior is related to such variables as SES (e.g., Merton, 1968; Cloward & Ohlin, 1960), status aspirations (Stinchcombe, 1964), and family structure (Myers, Milne, Bker, & Ginsberg, 1987).

Adolescent work experience. Increasingly, adolescents are engaging in part-time and seasonal employment (Lewin-Epstein, 1981). Employment in adolescence often is promoted as providing realistic career directions, knowledge of career possibilities, and increasing the perceived connection between education and work. There is some research evidence indicating that

employment is associated with an increase in self-management skills, career maturity and occupational knowledge for both sexes, and the development of autonomy among girls. The evidence also indicates, however, that negative outcomes such as decreased involvement in school and cynical attitudes toward work cancel any positive effects, particularly for adolescents who are intensively involved in work (see review of this literature in Greenberger & Steinberg, 1986).

Self-efficacy. Self-efficacy, as defined by social cognitive theory (Bandura, 1977, 1982, 1986), refers to an individual's judgements about his or her personal capabilities that is influenced by, and in turn, influences performance. Self-efficacy is particularly relevant in this study because it has been found to be related to educational motivation (e.g., Locke, Frederick, Lee, & Bobko, 1984; Shunk, 1984; Shunk, Hanson, & Cox, 1987) and to educational and occupational aspirations (see review, Lent & Hackett, 1987). Moreover, efficacy experiences are acquired not only directly through one's own experience but also vicariously through observational learning and modeling (Bandura, 1986). Television would be an important source of models, especially for North Americans who spend an average of 3 to 4 hours per day with TV. Modelling effects on self-efficacy are greatest, according to Bandura, when observers have little direct knowledge of their own capabilities. This would be true for child and adolescent TV viewers for the topics central to this study, educational and occupational aspirations.

Bandura (1986) has reviewed the literature documenting the development of self-efficacy through familial influence, the peer group, the school, and the transitional experiences of adolescents.

Self-efficacy has been found to relate not only to the content of career decisions, but to the process as well. Betz and Hackett (1981) found that

self-efficacy is significantly related to occupational choice among college students and that differences in self-efficacy are predictive of differences in occupational considerations for women choosing some male-dominated versus female-dominated occupations. In contrast, Post-Krammer and Smith (1985) found that self-efficacy did not predict the range of occupational considerations of junior high school students, even though there were gender differences in self-efficacy and occupational choice. Layton (1984) found that women's self-efficacy for traditionally female occupations was significantly greater than their self-efficacy for nontraditional fields. With regard to the process of career decision making, Betz and Hackett (1986) found that higher self-efficacy for career decisions was associated with less career indecision.

There is substantial evidence to suggest that perceived self-efficacy is associated with enhanced achievement striving in school (e.g., Schunk, 1982, 1985; Schunk & Hanson, 1985; Schunk, Hanson, & Cox, 1987). Moreover, as Bandura (1986) points out, "perceived self-efficacy is partially independent of cognitive skills but contributes significantly to performances requiring such skills" (p. 431).

Other theoretical approaches to achievement also emphasize the influence on behavior of personal expectations for success. For example, Covington and Berry (1976) use the concept of "self-worth", which they describe as the individual's evaluative self-appraisal, including in the broadest sense self-esteem, self-respect, and personal responsibility. They review literature suggesting that fostering these beliefs in school children does produce better learning outcomes. Similarly, Weiner (1984) proposed an attributional approach in which the important conscious experiences of students are those concerned with the self. Self-esteem apparently plays a

central antecedent role for effective school performance. It is likely, too, that the relationship becomes transactional. That is, higher self-esteem facilitates effective school performance which, in turn, supports and enhances self-esteem, and so on.

In sum, the theoretical and empirical literature regarding educational and vocational aspirations, motivation, and achievement point to television as one potentially important source of influence on young people. This body of literature served as the starting point for this project. Insofar as was possible, the coding system we developed was designed to assess whether and how these variables identified as important in the educational literature are reflected in the content of the prime-time TV programs on the three major U.S. networks that are most popular with children and teenagers in the U.S.A.

Procedures

Program Sample

This study was designed to take advantage of an existing data base, namely one entire week of TV programs videotaped in October 1985 and subsequently analyzed on several dimensions by Tannis MacBeth Williams and her students at the University of British Columbia. Education was not a focus of the original coding system, so a supplementary coding system was designed specifically to assess messages concerning educational and vocational aspirations, motivations and achievement. An assessment of portrayals and messages concerning drug use was a secondary focus of the study.

It was not possible to content analyze the entire week of programming for messages related to education and drugs. It took 1 1/2 years and a large budget to do so with the original coding sheet. The time, funds, and personnel available for this smaller project made it possible to re-analyze a subset of about 60 programs, and that was the basis of the contract. The

number of programs actually coded was much larger, 102. This includes the basic sample of 51 programs, an additional 22 programs coded for the analyses of multiple episodes of certain programs, and 29 programs double-coded for the reliability sample.

The program sample was selected on the basis of Nielsen ratings of the top 20 prime-time programs in November 1985 and November 1986 for both children (age 6-11) and teens (age 12-17). Prime-time is defined as 8-11 pm Monday to Saturday and 7-11 pm on Sunday. The 1985 programs were part of the existing data base that was videotaped Oct. 2 to 8, 1985. The programs popular in November 1986 were videotaped over several weeks in the spring of 1987, after discussions of the contract had begun. Many of the programs popular in 1985 were still popular in 1986. Some were not, however, but were still being aired in 1986-87, so they were also taped in the Spring of 1987.

The rationale for focusing on prime-time shows popular with children and teens was twofold. First, these programs reach the largest number of youths and therefore have the greatest potential influence. Second, the networks know via these ratings which programs have large numbers of young people in their audience. If the networks have a mandate or will to provide programs with the potential to positively influence school-aged viewers, it should be most apparent in the most popular programs. It is true that some programs are initially produced in part with youths in mind (e.g., Cosby), whereas others are not but nevertheless become popular with young people (e.g., A-Team, Moonlighting). The latter programs might not necessarily be expected to carry positive messages related to education in their initial season, but once their popularity with youths is established might be expected to change in that direction. Of course, many people hold the view that formal and/or informal education should be a lifelong goal and experience, and from that point of

view one could expect education-related messages in programs aimed at all age groups.

There were only 7 programs on the top 20 lists for children and teens in 1985 and 1986 that were not available for analysis. They were the ABC Sunday Night Movie, the NBC Monday Night Movie, and TV Bloopers & Practical Jokes from 1985, and the Disney Sunday Movie, Wizard Special, Family Ties Special, and Amazing Stories from 1986-87. Since the content of movies and specials may be expected to vary considerably from one to another, we chose not to replace those programs with currently available movies or regular series episodes. Only one program series, Amazing Stories, could not be taped at the time of the project, because it had been taken off the air.

Details of the program sample are shown in Table 1. There are 23 programs in the 1985 set, including 6 shows popular with children only, 4 shows popular with teens only, and the remaining 13 shows popular with both. The main 1986-1987 sample, based on November, 1986 popularity ratings, consists of 28 programs, 5 popular with children only, 6 popular with teens only, 11 popular with both, and 6 (as previously noted) popular in 1985 but not in 1986. The multiple episode sample (described further below) contained 29 programs. It includes the two Cosby, Facts of Life, and Family Ties programs in the 1985 and 1986 samples, the one Head of the Class program in the 1986 sample, 4 additional episodes of each of those programs, and 3 each of the programs Bronx Zoo and Roomies.

Insert Table 1 about here

We had originally intended to analyze the shows popular with children

separately from those popular with teens. However, most programs popular with one group also are popular with the other group. The two subsets popular with only one group are too small to calculate statistics, but it appears that some differences may exist. There seem to be more younger-aged characters in some of the shows popular only with children (e.g., Gimme A Break, Webster, Diff'rent Strokes), whereas the themes of programs popular only with teens seem to deal with more adult issues (e.g., Cheers, Miami Vice, Moonlighting). Note, however, that several shows popular only with teens are aired late in the prime-time period, so it is not clear whether time of airing or content is responsible for their lesser popularity with younger children.

We also had intended to analyze the 1985 and 1986 program sets separately to see if networks are responding to the popularity of programs by fleshing out education-related content. However, when we looked at the amount of focus on education in general, focus on the educational process, studying, role model and relationship messages about education, and SES levels portrayed, there were few differences between the two seasons. Education-related content increased slightly in some areas, decreased slightly in some, and stayed the same in others. We decided, therefore, to combine the programs from both years and analyze the data as one group.

Multiple episodes. The main focus of this study was the content of the 51 programs in the 1985 and 1986 samples. In each year, however, these samples contain only one episode of each program. On the one hand, it seems reasonable and defensible to ask what messages about education are provided over the course of one week in the different prime-time programs most popular with children and teens in the U.S.A. On the other hand, it also seems important to know how education-related messages vary over the course of a program series. Ideally one might wish to analyze an entire season of each program,

but for this study that was impractical. Instead, we have addressed the issue of representativeness in two different ways. First, we videotaped several additional episodes for each of several programs (see Table 1). Some were chosen because they were popular but not set in an educational setting (Cosby, Facts of Life, Family Ties). Three others were chosen because they occur in educational settings so would be most likely to carry education related messages. One (Head of the Class) was among the top 20 programs in November, 1986. The other two did not debut until later (Roomies, Bronx Zoo). This multiple episode sample of 29 programs was coded in detail in the same way as the basic sample of 51, and analyzed to determine the relative frequency with which education-related messages arose across episodes of these series. This approach to the multiple episode issue has the advantage that the programs were coded in detail, so it was possible to pick up passing references and minor emphases on education. It has the disadvantage that only a few series were covered, and all were programs that in the single episode sample had had some focus on education. Our second approach to the issue of the representativeness of single program episodes is based on the TV Guide descriptions. For each program in the single episode sample these descriptions were examined over a six week period (Spring 1987) to ascertain whether there was any indication of an education-related focus. This approach has the advantage of covering more of the programs in the single episode sample. Its disadvantage is that it probably picked up only those episodes with a relatively major focus on education and related matters.

Coding Sheet

Television can convey its content at the level of the show itself (e.g., plot; portrayals of groups in terms of both number and impressions, portrayals or references to issues). It also may impart a great deal of information

through individual characters. Our coding system (Appendix A) is divided into two major sections. The first section asks questions about the show as a whole and was completed once for each program. The second section deals with information about individual characters and was completed for several characters in each of the 51 programs; 160 characters in total were coded on a range of demographic and personal variables. Characters were coded individually if they were: a) involved in the main plot and necessary to tell the story, or b) involved in a sub-plot that related to education. These rules were adequate to ensure that two coders working independently reliably agreed which characters should be coded individually. A third section of the coding system dealt with drugs. It was completed only if alcohol, tobacco, illegal, or prescription drugs were referred to or portrayed in the show. During the initial training period and as coding proceeded the coders held frequent meetings to clarify interpretations. The coding manual developed via this process is Appendix B.

Reliability

Inter-coder reliability was established in the following way. In an initial training period the five members of the empirical part of the research team coded and discussed a series of programs used only for training purposes (all but the second author). In the next phase (pair coding) the five coders were mixed and matched in pairs. Two coders watched a show and then each independently answered the questions. They then compared their answers, and discussed each instance of disagreement until they agreed. Their original answer sheets containing both agreements and disagreements were used to calculate reliability, and their agreed upon answers were used as the data for analyses. Pair coding continued until each coder felt confident about the coding system and rules and ready to work alone. They were then randomly

assigned to programs. During this phase reliability was assessed by having a random sub-set of the programs coded twice, that is, independently by two coders. In this phase (blind coding) none of the coders knew which shows were in the reliability sample. In addition, to avoid coder drift, after every 3 hours coded alone each coder did the next program in a pair. There were 29 programs in the final reliability sample, of which 16 were pair-coded and 13 were coded blind by two independent coders. Of the 51 programs in the main sample, 12 were pair-coded and 10 blind-coded. Of the 22 additional programs in the multiple episode sample, 4 were pair-coded and 3 blind-coded.

Reliabilities were calculated using all of the double-coded programs. The questions in the coding sheet were designed to eliminate chance as much as possible, that is, the likelihood that coders would guess. Coders were instructed not to guess, and to use NI (insufficient information) if they were not sure how something was portrayed. As Janes (1979) points out, correction for chance in calculating reliability is unnecessary when chance/guessing is not a factor. In such cases, percent agreement provides an appropriate indication of reliability. Since our coders were told not to guess and could use NI for many questions, we could justify using percent agreement for all items. We have chosen instead the more conservative route of using statistics that correct for chance when possible. We calculated reliability using either Kappa (Fleiss, 1981) or Maxwell's RE (Janes, 1979). Kappa is the most commonly used method of correcting for chance in assessing reliability. However, when the distribution of correct answers in the population is asymmetrical, Kappa underestimates reliability. For example, if the proportion of programs in which non-traditional male behavior is definitely present is significantly less (e.g., 25%) than the number of programs in which it is definitely absent (e.g., 75%), (and that is so; indeed, the proportions

are even more extreme) then Kappa would provide a lower estimate of reliability than if the proportions were more evenly distributed, e.g., 50-50, or 60-40. In such cases, Maxwell's RE provides a better estimate of reliability (Janes, 1979), and so was used in this study. RE can only be calculated for 2x2 tables, however, so when there were more than two possible responses and the distribution was very asymmetrical but there was high agreement, we used percent agreement rather than Kappa. Using the most appropriate of these three methods, reliability was calculated for each item in the coding sheet. Extreme responses were combined with the next level if that was necessary to achieve reliability. Only data from individually reliable items were analyzed (i.e., unreliable items were not combined with reliable ones even if the mean reliability level was acceptable).

When statistical analyses seemed appropriate, chi-square analyses were used. Yates' correction was used when expected frequencies were small, and Fisher's Exact Test when cell sizes were small. When the χ^2 was significant, the Sheffé theorem as described by Marascuilo (1966) was used to test all paired comparisons, setting the maximum significance level for the entire set (e.g., of 3 comparisons between pairs of 3 possible responses) at $p < .05$.

Many of the questions on the coding sheet were open-ended. The coders were not required to fill them in if they didn't perceive or recall a message. For the open-ended questions, reliability was calculated by considering the four possibilities: 1) both coders wrote down the same message; 2) both wrote no message; 3) one coder wrote a message the other missed, but in the pair code discussion the one who missed it agreed it was there after it was pointed out; and 4) one coder wrote a message and in the pair code discussion it was decided that was in error. This latter

possibility occurred very rarely, which means that our statements about content based on open-ended questions are not incorrect. The third possibility occurred more often, but is less worrisome, since its effect would merely be to underestimate the incidence of messages. It is not surprising that some messages would be more salient to one coder or viewer than to another. In designing the coding system we felt it was important to have open-ended questions to obtain a more qualitative assessment to augment our more quantitative assessments. Frankly, however, we did not expect that independent coders would reliably write in the same messages. The frequency with which both coders wrote down the same message in response to an open-ended question was much higher than we had expected (252 messages, versus only 28 messages for which there was a true disagreement, i.e., the coders independently wrote conflicting messages or agreed after discussion that something one had written was incorrect). This may indicate that many of the messages in programs popular with children and teens are made quite explicitly and are very salient.

Results and Discussion

The Two Genres or Categories of Programs

The programs in this sample are homogeneous in several ways. Using a coding system developed by the Center for Research on the Influences of Television on Children at the University of Kansas (which served as the starting point for the original project on which this Education project was based), none of these popular programs would be classified as intended to be educational or informative. Similarly, almost all (94.1%) would be classified as not intended primarily for a child audience (under 12 years). This is not surprising, since almost no prime-time programs on the three major U.S. networks are intended primarily for children. The majority of programs were

situation comedies (70.6%), almost a quarter were police/detective shows (23.5%), and the remaining 5.9% were other comedy or adventure stories. Most of the programs (72.5%) had the same major characters from one episode to the next in the series.

Although these programs popular with children and teens are homogeneous in the ways just described, in many other ways they are not homogeneous. It would be quite misleading to summarize the content of these 51 programs as if statements about presence or absence and type of messages related to education were equally applicable. Instead, there seem to be two genres or subcategories of programs in this sample. These genres cut across both the years (1985, 1986-87) and the age categories (children, teens).

We have titled the two categories of popular programs A: programs Focused in Part on Education (n = 29) and B: programs Not Focused on Education (n = 22). These categories and some of their characterigtics are shown in Table 2. A quick glance at the table indicates that about 3/4 of the programs categorized as being focused in part on education had central characters of university age or younger among those coded individually; had more than half the program focused on learning in a broad sense (see Appendix B, page 13 for definition); had some focus on education in the narrow sense (Appendix B, page 3); and had at least one central character coded individually who was portrayed in a parent-like role (Appendix B, p. 17). By contrast, this was true of less than 1/4 of the programs categorized as not focused on education. The two subcategories within the program sample were formed by considering these four dimensions, with primary consideration given to the middle two. All programs for which both the learning and education characteristics were scored positively were placed in Category A, and all in which both were scored negatively were placed in Category B, with one

exception (227, 1985). This exception and some of the borderline decisions were made by considering the consistency of the four characteristics over the two years if the program occurred in both the 1985 and 1986 samples. The only really inconsistent case was 227, so it was given the benefit of the doubt and placed in Category A.

Insert Table 2 about here

The two categories are, of course, not cast in stone. A few programs may be mis-categorized because of the characteristics of the particular episodes in this sample. In general, however, the analyses of multiple episodes yielded evidence to support these two categories rather than contradict them. One may wish to debate the pros and cons of placing particular programs that seem to straddle the two categories in one group or the other (e.g., Silver Spoons, 227). On balance, however, it seems clear that it would be more misleading to discuss these 51 programs as homogeneous with regard to messages about educational achievement, motivations, and aspirations than to discuss them as comprising two subtypes or genres with respect to education.

Similarities and Differences Between the Two Program Categories

Because the main consideration in forming the two program categories was whether the producers seemed to have the intention of conveying messages about education or not, almost all of the education-related content discussed later in this report applies to Category A and does not apply to Category B. Before discussing in detail the types of messages about education conveyed by programs in Category A, we shall delineate further the similarities and differences between the two categories on other dimensions identified in the literature review as directly or indirectly important for educational and

vocational motivations and aspirations. They are summarized in Tables 3 and 4.

Insert Tables 3 and 4 about here

SES. Socioeconomic status portrayals were similar for Category A and B programs and were almost exclusively the middle to upper and upper classes. There were very few portrayals of the working class or poor. Of the 160 individual characters coded, 76.9% (123/160) were portrayed as middle to upper class or upper class; only 12.5% (20/160) were shown as working class or poor. Parents were portrayed 88.9% of the time as middle to upper or upper class, 11.1% of the time as working class, and never as poor. The children and teens' peer group on television (elementary and high-school aged and 18 to 24 year old characters) were shown 85.7% middle to upper or upper class, 14.3% working class, and never as poor. Unemployment was not often mentioned. Most programs were both explicitly and implicitly very materialistic (see Table 3).

SES is highlighted in the educational and vocational aspiration literature as a key variable in predicting higher aspirations, higher need for achievement and higher attainment levels. What is television's role in this important process? On the one hand we might wish that television would present SES groups in proportions reflecting the real world, with a range of educational and vocational variables depicted in a variety of ways for each SES category. Television's overwhelming focus upon the middle to upper classes leaves little room for diversity in the portrayal of lower SES groups. One of the recurring debates regarding TV content is whether it is merely a mirror of society or a force (positive or negative) for social change. SES historically has been importantly linked to educational and vocational aspirations, motivations, and achievement. As the literature

aspirations and attainment tend to match their parents' social class. Assuming that equal access to educational and occupational goals is desirable, it would seem important to increase the educational aspirations and motivations of lower SES students, and thus their educational and vocational achievement. The media, especially TV, could play a central role in this regard by broadening students' horizons and perceived options.

From a role model point of view, how would television interact with the viewer's own SES level to influence educational/vocational aspirations and achievement? How, for example, might lower SES children and teens be affected by television content consisting almost entirely of middle to upper SES lifestyles and characters? Modelling or mainstreaming theoretical accounts might interpret this as creating a positive goal for these individuals. But perceived similarity between oneself and the model is an important determinant of imitation. Thus if children and teens perceive the characters about whom education-related messages are conveyed as very different from themselves, they may not consider the messages to be applicable to them. Schema theory also emphasizes that much of the information attended to and processed is that deemed to be self-relevant. Thus the positive education-related presented on messages TV may be ignored or missed by lower SES viewers. Gerbner's (1978) contention that network television perpetuates the status quo rather than encouraging social change seems particularly relevant here. It also is possible that television producers themselves choose self-relevant content and infuse their own upper-middle class bias into their programming. Whatever the motivations behind the productions, the end result is that programs popular with children and teens portray middle to upper SES lifestyles, including considerable materialism, but provide little information about the vocational and educational avenues via which those lifestyles might be achieved.

Children and teens from all SES backgrounds observe that physicians, lawyers, and successful entrepreneurs live well. Middle and upper SES children are likely to learn from sources other than the media that if one wants to become a professional one must do well in school, and then in university. Lower SES children are less likely to hear such messages about the processes behind vocational success. Television could link messages about education to the images of occupational success it portrays, but by and large it does not.

Religion. Comments about religion occurred equally infrequently (about 20%) in the two categories of programs.

Ethnicity. Ethnic background is generally less predictive than sex or SES for ecucational/vocational aspirations. However, the empirical evidence reviewed earlier that the majority of Blacks lack relevant educational and vocational role models in their immediate interpersonal environment, as opposed to Whites who lack only occupational models, suggests that television could be an important source of educational models for Blacks. The importance of self-relevance in information processing theories also suggests that ethnic role models might be essential for members of ethnic minorities to profit from television's educational and vocational content.

Proportionately more programs focused in part on education (62.1%) than those with no focus on education (27.3%) had at least one member of an ethnic minority among the characters coded individually, but this may be primarily an artifact of the rules used to code individual characters. Recall that characters in sub-plots were coded if the sub-plot dealt with education, but not otherwise. The additional information about ethnic minorities in Table 3 indicates the two program categories were more similar than different in this regard. As other content analyses have demonstrated previously, the prominent and background characters were all or almost all mainstream non-ethnics, and

this also was true of the subgroup of powerful/authoritative/knowledgeable characters. The implicit message to ethnic minorities given by their numbers on TV, and the explicit message given by portrayals of their relative power, is that they are unimportant. The issue of TV as mirror versus TV as agent for positive social change is again relevant. One would not wish to avoid depicting unpleasant realities, but could imagine providing more positive role models for minority groups than are currently available in these popular programs.

Prejudice was not often portrayed, and when it was, it was fmore often explicitly portrayed as unacceptable than as acceptable (because of lack of a comeback or response).

Of the 160 characters coded at the individual level 71.9% were North American non-ethnics, 20.6% were Black, and the remaining 7.5% included British, Mexican and Oriental characters, as well as 2 aliens from other planets. When characters were ethnics, most (78.9%) were shown functioning adequately. They were never portrayed as having problems due to ethnicity, but 21.1% were shown as having problems not due to ethnicity. The majority were shown as having no ethnic identity (68.4%) and only 7.9% were shown with strong ethnic identity. This portrayal may reflect the historical "melting pot" philosophy in the U.S. which encourages immigrants to become as "Americanized" as possible. Ethnics were shown as leaving a positive (76.3%) or mixed (21.1%) impression, with only one show portraying an ethnic character as negative.

There were no significant differences between ethnics and non-ethnics in kinds of jobs portrayed, education level achieved and proportion of males to females. Although the number of cases was too small to calculate statistics, there seemed to be more elementary-school aged ethnics and fewer ethnic

fathers than would be expected.

Gender. Although females comprise 51% of the population, they are under-represented on television. The results of content analyses conducted from the 1950s into the 1980s have been surprisingly consistent. About 70% of the characters are male and 30% are female, on average, with even more disparate proportions in certain kinds of programming (see Kimball, 1986, for a review). This preponderance of males also was true of this sample of programs popular with chilren and teens. When asked about the program as a whole, the coders indicated that the prominent characters were all or almost all male in 62.7% of the programs. This proportion was lower in programs focused in part on Education (51.7%) than in programs with no focus on education (77.3%), but the difference was not statistically significant. The background characters were more evenly distributed by sex, with 45.1% all or mostly male; again, the proportions were similar for Categories A (42.9%) and B (57.1%). Our analyses of individual characters also revealed more males than females. Of the characters deemed sufficiently central to the plot or involved enough in education-related matters to be coded individually, 61.3% were male and 38.8% were female. The implicit message that males are more important given by their greater numbers, especially among prominent characters, also was given explicitly. The characters judged by the coders to be powerful/authoritative/knowledgeable were all or mostly male in 68.6% of the 51 programs. Again, the proportion was lower for programs in Category A (58.6%) than B (97.8%), but this difference was not statistically significant (Table 3).

If you were a female child or teenager, how many peer role models would be available on TV in your age group? The elementary school years may be particualarly important for the development of beliefs and expectations

(schemata) regarding educational motivations and aspirations. Unfortunately for elementary-school-aged female viewers, in their age group on these popular programs females were outnumbered by males 3 to 1. For high-school-aged and 18-24 year old viewers the numbers were almost even, which is notable given television's otherwise consistent ratio of 2 males to each female. Adult males and females (age 25 and over) were shown in approximately that proportion (1.7 males to 1 female).

In-class settings were rarely portrayed in these programs, so they were not informative about the in-class potential/ability of males and females or in-class oportunities to develop or use their potential. Outside class there was no information about potential in 35.3% of shows. Again, more Category A (41.4%) programs provided such information than was true of Category B (27.3%), but the two did not differ significantly. When information was given, however, the sexes were shown as more equal than unequal in ability.

The degree to which females hold a traditional sex-role orientation has been shown to be related to their educational and occupational aspirations. Television has been criticized for perpetuating gender stereotypes for both males and females, and these popular programs support that view. Almost all shows portrayed at least some sex-stereotyped females (96.1%) (more than 1/2 portrayed many) and some sex-stereotyped males (92.2%), and the proportions did not differ for the two program caegories (see Table 3). At the level of the individual character, 57.1% of males and 56.5% of females were portrayed as very or extremely sex-typed. In theory, these portrayals of traditional gender roles might be balanced by frequent portrayals of males and/or females in non-traditional roles. One hears, based on anecdotal impressions, that the TV world is changing in this regard, but these popular programs provide few examples. More than 95% portrayed no or few females in a counter-stereotyped

way, and 100% did so with regard to males.

In real life one of the barriers for women who wish to pursue higher education and/or a career is the fact that they carry almost all the responsibility for domestic labor. Again, despite anecdotal evidence that things are changing in that regard, time-budget studies continue to demonstrate the extra burden carried by most women, from factory worker to executive. From that perspective, the portrayal of division of domestic labor is one of the strengths of these popular programs. Traditional division of housework (i.e., performed by women) was shown or referred to in 43.1% of the 51 shows, 65.5% in Category A and 13.6% in Category B, which less often are centered in the home. The more encouraging finding was that non-traditional division of domestic labor (i.e., male-performed housework) occurred in 27.5% of the shows, 37.9% in Category A and 13.6% in Category B. Moreover, participation by males in domestic labor usually was portrayed positively.

Marriage can sometimes delay, change or replace educational and vocational goals, especially for women. Similar proportions of males (58.2%) and females (62.9%) were shown as single. More females were shown as married (21.0% vs. 14.3% for males) or widowed/divorced (9.7% vs. 2.0% for males). The result, as other researchers have found, was that information about marital status was more often lacking for males (25.5%) than for females (6.5%), $\chi^2(3) = 13.19$, $p < .005$. This implies that marital status is implicitly more important for females than for males.

Table 4, based on 1985 data from the original project, provides other disturbing evidence of sexism in these popular programs. Half the 1985 programs portrayed females or males as sex objects, and this was equally true of Category A and B. Moreover, about 20% contained sexist comments about females that were portrayed as acceptable, whereas less than 5% did so for males.

Despite other inequities in the portrayal of the sexes, these popular programs did portray males and females equally and positively in terms of self-efficacy, a personal characteristic identified in the literature review as importantly related to educational motivation and to educational/vocational aspirations.

Other evidence to support the two categories of programs. Tables 3 and 4 provide some additional evidence that this sample of 51 popular programs is comprised of two sub-categories which, at least for some purposes, should be considered distinct.

Almost all the programs focused in part on education (93.1%) are situation or other comedies, whereas that is true of only half the Category B programs (45.5%), and slightly more than half (54.5%) are police/detective/crime or other action/adventure programs. As Table 3 indicates, this is a statistically significant difference, $\chi^2(1) = 14.26$, $p < .0002$.

In addition to being focused in part on education, 69.0% of Category A programs were more than half focused on learning in the broad sense (versus 13.6% of Category B). By contrast, 63.6% of Category B programs had no or less than 1/2 of their focus on learning in the broad sense (versus 20.7% for Category A). Again, Table 3 indicates this pattern of differences was statistically significant.

Table 4 provides some comparisons between the two genres of popular programs based on analyses of the 1985 programs in the original data base (14 in Category A versus 9 in Category B). Caution is required in interpreting these comparisons because they are based on relatively small groups, but even a conservative approach leads to the conclusion that the two categories are different. In particular, programs focused in part on education are more likely to contain at least one child, 71.4% versus 11.1%, $\chi^2(1) = 5.75$, p

< .02. This suggests a more direct acknowledgement by the producers of their popularity with young people and perhaps an attempt to provide positive peer role models. The difference in proportion of programs with at least one teen character also is striking (85.7% versus 44.4%), but because of the small sample it is not statistically significant after Yates' correction, $\chi^2(1) = 2.67$, $p < .11$.

Another dimension on which the two subcategories seem to differ fairly dramatically is in the portrayal of a physical aggression. Very few Category A programs and many Category B programs contained physical aggression (14.3% vs. 66.7%, $p < .035$), violence (extreme physical aggression, 7.1% vs. 55.6%, $p < .04$), real guns (14.3% vs. 66.7%, $p < .035$), and reference to or portrayal of death (7.1% vs. 66.7%, $p < .015$). Note, however, the high levels of verbal aggression in both categories (84.6% of A and 100.0% of B). These findings regarding physical aggression, coupled with the non-significant but less frequent impression given by Category A that the world is a dangerous place, and Category A's less frequent focus on the rich and famous (14.3% versus 55.6%), provide important additional evidence regarding these two genres of popular programs. Taken together, the comparisons lead us to conclude that producers of Category A programs are attempting to provide programming with some positive effects on young people. This does not seem to be true of producers of Category B programs, even though they presumably are aware of their child and teen audiences, at least from one season to the next.

A final dimension which may in part account for the popularity of these two genres of programs is their focus on romance (about 50% of the programs in each group) and sex (about 25% in each group). In some cultures children learn about romance and sex primarily by observing adults, including their parents. In North American culture, however, relatively few live models are

provided, so the media become an important source of information for the development of expectations and schemata about romance, dating, sex, and so on. The proportion of these popular programs containing some romance (50%) is higher than the proportion (34%) for all prime-time programs in the original 1985 sample. The proportions depicting sex were similar. It may be that youths are especially attracted to these popular programs in part because they are a source of information about relationships.

Analyses of Multiple Episodes of Individual Programs

As we discussed in the Method sections, we took two different approaches to the quesion of the representativeness of single episodes of a program with regard to education-related messages.

Intensive analyses of 29 episodes of 6 programs. The intensive analyses of 6 episodes each of Cosby, Family Ties, and Facts of Life, 5 of Head of the Class, and 3 each of Roomies and Bronx Zoo revealed considerable consistency. For example, with the exception of two of the Cosby episodes, there was at least a passing reference to education in all of these programs. The proportion of shows with 50% or more of their focus on education were 17% for Cosby, 50% for Family Ties and Facts of Life, 67% for Roomies, 80% for Head of the Class, and 100% for Bronx Zoo. Class settings tended to be shown in the programs that centered on education, but more for Bronx Zoo and Head of the Class (100% each) than Roomies (33%). One (17%) of the Family Ties episodes also portrayed an in-class setting. A similar picture emerged for references to and portrayals of the educational process. There was none for 100% of the Cosby, 67% of Family Ties, 83% of Facts of Life, and 67% of Roomies episodes. The educational process was portrayed or referred to in 100% of both Head of the Class and Bronx Zoo.

All of the series had at least one episode with some reference to

studying. Only Family Ties, however, had references to studying in 100% of the shows. Not one of the portrayals of studying was negative. Cheating in school seldom was an issue. It was mentioned in only two series, Head of the Class (20%) and Bronx Zoo (66.6%). In these instances of cheating, only one episode of Bronx Zoo showed it as successful, and none of the instances was portrayed as acceptable.

As well as coding portrayal of education in the narrower scholastic sense, we coded portrayal of learning in a broader more general way. All but one (Family Ties) episode of the multiple episode sample had some focus on learning. An emphasis on learning constituted half or more of the program for 67% of the Cosby episodes, 83% of the Family Ties episodes, 100% of the Facts of Life episodes, 80% of the Head of the Class episodes, 67% of the Roomies episodes, and 100% of the Bronx Zoo episodes.

There was reasonable to considerable consistency across episodes of these programs in the ways in which other variables were portrayed as well, including materialism, SES, unemployment, sex roles, and ethnic minorities.

In sum, these intensive analyses of multiple episodes of a selected subset of programs provides support for conclusions drawn from the basic sample in which each program was represented by only one or two episodes. These analyses also lend support to the classification of these programs in Category A, that is, as having a focus in part on education.

TV Guide analyses of multiple episodes. As another way of checking the consistency of education-related messages on TV we did a multiple episode analysis of the descriptions listed in TV Guide. This particular guide was chosen after a preliminary examination of several guides indicated it provided the most consistently detailed program descriptions. The descriptions usually give a summary of the main plot but do not usually mention the subplots. Thus

they provide a conservative estimate of the number of programs containing messages related to education, but a fairly accurate assessment of the number of programs having education as a major focus.

Using TV guides for a six week period in the spring of 1987, all of the episodes of programs in our sample that were described in the guides were rated as either definitely having educational messages, possibly having educational messages, or as definitely not having educational messages. These data are summarized in Table 5. Programs we have categorized as A, focusing in part on education, contained significantly more programs with central messages regarding education (27.1% certain, 5.9% maybe) than did programs we categorized as B, not containing education-related messages (3.0% certain, 1.5% maybe), $\chi^2(2) = 18.51$, $p < .0001$. This second approach to multiple episode analysis therefore also supports our conclusion that programs popular with children and teens fall into two genres, with one much more likely than the other to portray education-related messages.

Focus on Education and Related Issues

Having established the existence of two sub-groups of TV programs within this popular sample, and reviewed the ways in which background variables are portrayed, we shall turn now to the ways in which education and more directly related variables are portrayed. It is important to keep in mind that practically none of the Category B programs had any focus on education, so when educational portrayals are discussed below, they refer almost exclusively to Category A programs.

Focus on education. When education was mentioned, it usually received relatively little emphasis. It was the focus of half or more of the program in only 8% of the shows. The complexity of education-related messages varied, but they were more often simplistic (21.6%) than complex (7.8%). The

prime-time programs most watched by children and teens in the U.S. offers very little with which to develop realistic expectations about what school is like, or to compare with their own school experience.

School setting. This set of prime-time programs popular with children and teens rarely included school settings. In-class settings were portrayed in only 3 programs (5.9%). The educational levels for those shows were high school (n=2) and undergraduate (n=1). In all cases there was an even mix of males and females in the class, The class size was small (11-20 students). On the one hand this is not surprising, since having more students would make production more expensive. On the other hand, small classes are rare in real life, and this may produce unrealistic expectations. School settings outside the actual classroom (e.g., school cafeteria, hallways, playground) were shown in 6 programs (11.8%). Although school-related settings were relatively rare in this sample, specific messages about eduational/vocational aspirations were coded in 23 programs (45.1%), almost half the sample. These messages are discussed in more detail below, in the next section.

Head of the Class was the only program in this sample with a major and continuing focus on school and related matters. It is interesting to note, however, that the audience ratings placed it in the top 20 for both 6-11 year olds and teenagers in the Fall of its first season. Moreover, the Spring season of that year (1986-87) saw the debut of two additional programs focused on educational settings, Bronx Zoo and Roomies. It is too early to tell whether this represents a real trend or a concerted effort by the networks to provide more programs with a focus on education, but the situation is more promising now than it was in 1985.

Cheating and classroom behavior. In-class misbehavior was portrayed and referred to very rarely. Two programs contained either in-school cheating or

dysfunctional/disruptive behavior in-class. In both instances the behaviors were portrayed as negative or unacceptable, and in neither case was the behavior shown as successful. Functional in-class behavior also was rare (2 programs), but when it was shown it was positive and successful. Although the examples are meagre, when these popular programs did portray in-school behavior they did so in a very responsible way.

Studying and homework. Studying was never shown as a major focus of a show, but it did receive minor or moderate focus in 7 (13.7%) and was central to the plot in 2 (3.9%). Most often, portrayals or references to studying were incidental to the plot (19.6%) and passing references (21.6%). Studying was almost uniformly portrayed as serious or mixed, with only one show presenting it as a joke. When the information was provided, studying was shown primarily as positive and rewarding. It was never shown as easy, and the portrayal of how enjoyable it was was varied from not enjoyable to mixed to enjoyable. In most cases not enough information was provided to enable the coders to discern the messages associated with studying, but the messages revealed by the open-ended questions (see below) revealed that it was responsibly portrayed.

Children may use television as a source of information about effective study skills. How are both good and bad skills portrayed? Again, the numbers were few, but when television showed good study skills (4 programs) they were portrayed positively or mixed, whereas bad study skills (2 programs) were shown as negative. Only good study skills were shown as successful, but this occurred in only 2 programs.

The numbers of students, and those who do homework, were small, and our reliability assessment indicated this was a section of the coding sheet in which disagreements occurred fairly often because one coder did not complete

it, probably because the portrayals were not very salient. When both did so, however, their agreement was very high. The following statements are likely, therefore, to be accurate but to underestimate the frequency of portrayals. Some information (most often sex) was provided about both students (24 shows, 47.1%) and those who do homework (16 shows, 31.4%). Generally when television portrayed students and people doing homework, both males and females were represented. However, when only one sex or the other was shown in the program, those shows with females-only outnumbered those with males-only 3 to 1 for homework and 2 to 1 as students. This provides an interesting contrast with the preponderance of male characters in general. The students were evenly divided between those who were "popular" and those who were "nerds/unpopular". Students and those who do homework were mainly shown as bright or mixed bright and average, and no shows portrayed only dull students. In terms of achievement, students and/or those who did homework were evenly divided between those failing and those aiming for a higher degree. These characters were almost never portrayed as only negative. Most shows portrayed only positive people or a mix of positive and negative people. Five shows portrayed visible ethnic minorities as doing homework and seven portrayed them as students. Considered in the light of recent research (Dornbusch, 1984) which suggests that at least some ethnic minorities put in many more hours every week doing homework than do non-ethnic students in the U.S., and in part do better at school because of that, television may not be reflecting the current reality in the U.S. The SES level of students mirrored television's proportions: primarily middle to upper class with only a few exceptions. No programs portrayed students or those who do homework as only jokers. For the most part they were shown as a mix of jokers and serious people, with a substantial number of shows portraying only serious people.

Most of the people shown as students or doing homework were children and teens, but 2 shows had both adults and children doing homework, 2 shows had only adults as students, and 1 show had both children and adults as students.

There were no part-time students of any age portrayed in this sample, and no evidence of continuing education or "life-long learning". In this case TV may be missing an opportunity to mirror or contribute to the increasing trend in North America for adults to spend some of their discretionary time pursuing credit or non-credit educational goals.

Education goals. These popular programs were almost silent regarding educational goals. Only five of the 160 characters said anything about future educational plans. Among the five, one each specified Bachelor's degrees in Commerce and Fine Arts, and the remaining three stated general goals of going to college or back to school. Planning is an essential aspect to getting an education, one which these popular programs did not portray.

Degree. For 88.8% of the 160 characters coded individually, there was no information regarding any kind of diploma, certificate or degree. When degrees were indicated, most (77.8%) related to high prestige occupations such as lawyer, physician, economist, and psychiatrist. We also looked specifically for vocational certificates, but no information was given. Most characters, no matter what their occupation, gave no indication of the kind of commitment to getting an education that would have been required of them. When information about degrees attained was given, males outnumbered females (14 to 4). Two of the four females had nursing degrees, that is, were qualified for a traditionally female occupation of lower status than was true of several of the males. One female had a BA degree and the entire program was focused on her inability to get a job despite her degree. The fourth female was Cosby's wife who is a lawyer but who is portrayed almost

exclusively as a wife and mother.

Significant others. The literature reviewed earlier pointed to the importance of significant others as mediators of education-relevant variables. Of the 23 programs containing "significant other" messages, 65.2% contained some focus on education and 47.8% contained some reference to studying. This seems to reflect a deliberate choice to represent educational issues in these specific shows. Additional information about the role of significant others for education/vocation is provided below in the section on role models.

Nature of messages about education. Of the 26 programs with some focus on education, sufficient information was provided by 19 to evaluate the messages (i.e., 37.3% of the entire sample). In 6 shows only positive messages were presented, in 7 shows only negative messages were presented, and 6 shows contained both positive and negative messages.

There were three major themes among the positive education-related messages. They indicated that education provides enhanced job opportunities, education increases social desirability, and emphasized the challenge and enjoyment of learning. Less frequently education was portrayed as a means for self-improvement and for improving society or the world.

In general, television's negative messages about education revolved around the idea that other things are more important, and in particular, social life is more important.

Positive and negative messages were fairly evenly divided across the programs portraying some evaluative message.

Education as an avenue to success and happiness. This was another section of the coding system which probably tended to underestimate the occurrence of messages. Disagreements between the coders occurred almost entirely because

one did not answer an item; when they both answered, there was almost perfect agreement. Again, this may indicate that these messages are relatively low in salience.

In the few cases in which current school success and final educational achievement were coded as avenues to success and/or happiness, these popular programs provided mixed messages. Current school success was always shown as moderately or very important and positive for happiness. In terms of success, however, current school success ranged from unimportant to very important, and was shown variously as negative, positive, and as mixed. Final educational achievement was presented as moderately important with either positive or negative effects in relation to happiness. As a route to success, final educational achievement was shown either as unimportant or as very important, and again with either a positive or a negative impact. If one recalls the degree to which these programs were explicitly and implicitly materialistic, and the kinds of degrees mentioned, it is perhaps disturbing that educational success and achievement were infrequently portrayed as important for obtaining at least some of those goals.

Role Models

The literature identified three processes by which educational and vocational aspirations are formed: imitation of models, self-reflection, and adoption of the expectations of definers. Characters portrayed on television are potential sources of information for viewers via all three processes. In addition, TV may portray the process of role modelling within a program.

Peer models. For these programs, peer models included 12 elementary-school aged, 25 high-school aged, and 12 18-24 year old characters.

Variables identified in the literature review as importantly related to educational and vocational achievement formed the basis of a number of items

used to evaluate each character individually coded. Unfortuately, these programs provided practically no information about directly education-relevant characteristics including: school achievement, study habits, educational history, attitude to learning, expectations for success, self-confidence as a learner in general and in specific areas, perceived utility of education for future success, belief that parents are confident in self as a learner and beliefs about parents' perceived utility of education, parents' actual confidence in the student as a learner and parents' actual perceived utility of education for the student's future. In the isolated instances in which the programs did convey some of this information, the content was generally positive.

In addition to explicit education-related characteristics, individual characters were coded for other attitudinal variables known to influence educational motivation, including attributions and self-worth. In general terms this was a likeable, hardworking, happy, high self-esteem group. Elementary school children were portrayed as less competent than high-school aged and 18-24 year old characters, as might be expected. They also were portrayed as slightly less honest and less popular than the other two groups.

There were proportionately more boys than girls and ethnics than non-ethnics at the elementary-school aged level (as mentioned previously), but the two older age categories were even on these dimensions.

The number of elementary or high school aged characters for which a job was indicated was small (3 for each age group). The jobs included two babysitters, one waitress, one oil rig owner, one drug dealer, and one boy working for his father's company. These television shows popular with young people do not seem to be portraying their peers in the workplace. This seems wise, since the literature indicates there are some negative effects of

employment on students' educational attainment. TV programs could, of course, portray that trade-off more directly.

After the coding system was developed and coding had begun it occurred to us that TV has been criticized for the ways in which young people's behavior toward adults is portrayed. It has been reported anecdotally as disrespectful, wisecracking, and lippy. Our evidence is not systematic, but we found little support for these concerns. In general, children and teens were portrayed as reasonably respectful and polite, and when they were not, the intent was quite clearly to show this behavior as unacceptable.

Definers. The expectations of parents and teachers are adopted by children and teens in the process of forming educational and vocational aspirations for themselves. Our sample of individual characters contained only one teacher, so this discussion of definers will focus instead on the 19 mothers and 17 fathers. Note that for Blacks in the U.S. it is teachers who are the most frequent source of educational models (whereas Whites name adult friends), but television provides only rare examples.

The SES level of parents, as mentioned earlier, generally was consistent with television's middle to upper SES focus. Four mothers and no fathers were depicted as working class. The middle to upper and upper class mothers and fathers were fairly evenly divided.

Fathers were shown more often in high prestige professional and executive occupations than were mothers. Those in non-managerial white collar jobs and working class jobs were fairly evenly split by sex. No mothers were police/detectives/military, and no parents were involved in illegitimate occupations. When parents were portrayed, no information about job was three times more likely for mothers than it was for fathers. The roles of 58.8% of fathers compared to 36.8% of mothers were portrayed as having a moderate or

major focus on occupation. These depictions provide the implicit message that jobs are more important for fathers than for mothers. If one recalls the evidence discussed earlier that marital status is indicated more often for females than males, and that females are in less prestigious occupations when occupation is indicated for them, these programs are likely to have a negative rather positive impact on the educational and vocational aspirations and motivations of young women who are forming their educational and occupational goals.

Education attainment levels were rarely specified for parents, but when they were, they indicated that parents (most of whom were mid to upper SES) had some college or university background.

Parents and other adults interact with young people in a variety of ways. Baumrind and her collagues have studied parents' disciplinary styles and found that most fit one of four patterns (Lamb & Baumrind, 1978). Authoritarian parents are demanding but not very responsive, permissive parents are responsive and undemanding, nonconformist parents are like permissive ones in opposing authority but are more demanding, and authoritative parents are demanding but accepting, using reason as well as power to achieve control. Maccoby and Martin (1983) describe a fifth category, indifferent parents who are undemanding, unresponsive, and minimally involved. What kinds of parent role models does TV provide for parent and child viewers? We included all adults who were portrayed as parents or in a parent-like role (e.g., male housekeeper). Whether the analysis is restricted to all adults in parent-like roles or to actual parents, almost all were depicted as having an authoritative parenting style, which has been shown in the literature to correlate with children's higher levels of competence and academic achievement. In this area TV clearly provides excellent role models. There

were only a few instances of authoritarian parenting, and one each of indifferent and permissive parent styles (the latter was for an elderly woman playing the role of foster grandmother). Remarkably, all fathers and all but one mother were portrayed as having a moderate or major focus on their families.

The types of families themselves varied widely. There was such a mélange that we could not categorize them for purposes of analysis. The modal type seemed to be traditional nuclear (found in 22/51 shows or 43.1% of the sample) with the father working away from home and the mother working only in the home. However, several programs portrayed single mothers, single fathers, dual income nuclear families and extended families. In addition, two programs contained multi-racial families (via adoption). Interestingly, no "combined" or "blended" families were shown (i.e., families formed when divorced parents remarry, bringing their respective children). A number of programs could not be coded for family type because although parents were portrayed, there was no information regarding their employment. For example, both parents in Cosby are purported to be professionals, and the material wealth displayed in the show attests to substantial income, yet these parents rarely, if ever, refer to their occupations, let alone are depicted at them.

Other characteristics of characters who might serve as role models. For characters aged 18 or over, the largest marital status category was single or probably single (48%). Married characters made up 22% of the total, and there was no information about marital status for 23.6% (predominantly males as noted earlier).

Most characters were portrayed as having minor problems (62.5%). These are defined as problems that are solved within a short period (e.g., within the show, or it is implied that they will be resolved shortly thereafter) and

without probable long term consequences. These problems were characterized by a preponderance of interpersonal difficulties, including marital, romantic, family and friendship related problems. In addition, a number of characters (mostly in Category B) were coded as having minor problems as a result of worries or fears about drug dealers, killers on the loose, and other dangers. Job-related problems tended to be portrayed as minor, including hating one's job, losing one's job, and being unable to get a job. When problems were major, they tended to be bad guys trying to kill the character, or being a bad guy and getting killed or caught. As this analysis of individual characters' problems implies, programs categorized as focusing in part on education tended to depict minor problems (78.6%) rather than major ones (21.4%), and the opposite tended to be true of Category B programs (33.3% minor versus 66.7% major). This latter analysis is based on the original 1985 data, however, and thus only a subset of the programs (see Table 4).

Characters in popular TV programs could serve as important role models, either positive or negative, for children and teens who are faced with decisions about drug use. Since a minor purpose of this project was to examine messages about drugs, a separate section toward the end of the Results and Discussion is devoted specifically to drug use and abuse.

In terms of personal characterisics, the characters were predominantly likeable people with high self-esteem. They also were shown as relatively high in self-efficacy and generally competent. The literature suggests that the fostering of such attitudes in school children can produce higher educational aspirations, motivation, and achievement. Further, efficacy experiences can be vicariously acquired via modeling This sample of 160 characters appears to be providing numerous such models.

Specific messages regarding role models and education/occupation. Of the

11 programs with any messages regarding role models in relation to educational and/or vocational aspirations, 8 occurred in programs focused in part on education (Category A). Beyond this quantitative distinction, analyses of the open-ended comments regarding these messages also revealed qualitative differences in the breadth, complexity, and content of these messages.

Role model messages in Category B programs seemed to be less relevant than those in Category A programs to the lives of young North American viewers. The messages in Category A programs more often dealt with content related to education, learning, and vocation/occupation, and did so in ways with which young viewers could identify more readily. The Category B role model messages dealt with a male from the U.S. serving as a hero-model for the entire Thai population, a nun motivating a young woman to be a nun and work in an orphanage in Thailand, and the role played by circus family parents in guiding their children to circus family life. By contrast, one of the Category A role model/messages (Growing Pains) dealt with a father acting as a role model for his son as he tried to select a science project. The father was sometimes a bit silly and out of touch with his son's school interest, but he also took real joy in sharing his boyhood science project ideas with his son. In Webster, a father was shown as a poor learning-related model, as he coached his scout troup to win a competition on camping knowledge. After telling them not to bother studying the first part of the section on first-aid because "it won't be on the exam", his troop was unable to aid a fellow scout when he broke his leg. The other scout leader, a mother who had encouraged her troup to learn about camping for themselves rather than for the competition, motivated her troup to "really learn". They were the ones who were able to rescue the injured boy. In Head of the Class, both the teacher and the class itself provided positive models and encouragement to a student who had never

believed in himself, and they convinced him he could become a writer someday.

Category A programs also contained some role model messages related to vocational aspirations. In both the 1985 and 1987 episodes of Kate and Allie, Allie (a friend) was extremely supportive of Kate in the job-hunting process. In one of these episodes a job counselor was disinterested in Kate's need to improve her vocational position and discouraged her aspirations because of sexist job assumptions (secretary, stenographer). In Diff'rent Strokes, a father was shown being supportive of his three children, all of whom had jobs with his firm. When the daughter decided to go out and get a job "on her own", he respected her decision and need to be independent. The remainder of Category A role model messages dealt with such vocation-related content as co-workers and bosses as people to emulate, and those who don't "cut it" as losing their job.

Portrayal of Occupation

As the preceding comments illustrate, television can act as a source of information about jobs and job-related issues, particularly for children and teens who are forming educational and occupational aspirations and motivations but often have relatively little real-world information. Occupational and educational goals are closely tied of course. TV has the opportunity to influence youths' attitudes and expectations about career choices, to influence their career motivation, and to provide a basis for the development of occupational concepts.

Types of jobs. We initially set up job categories on the coding sheet using traditional job types such as managerial, white/blue/pink collar jobs, and professions, so that we could analyze and refer to the results in such terms. As the project proceeded it became evident that these popular programs reflected a different occupational mosaic, and many jobs didn't fit our

original categories. We therefore reformed the categories into six groupings based upon the jobs portrayed in this sample. Information about job type was provided for 49.4% of the 160 characters. The "professionals/executives/owners" category was largest (other than "no information"), with 15.6% of the characters. "Police/detectives/military" and "working class" were tied for 2nd place with 10.6% of the characters each. "Writer/artist/actor/musician" included 5% and 6.9% were in "white-collar non-managerial" jobs. Finally, 3 characters (1.9%) were portrayed at jobs of questionable legality, including racketeer, mercenary, and drug dealer.

As other researchers have found in previous content analyses, the job information provided in these programs popular with youths included high prestige jobs and cops. However, the reasonably high number of working class jobs including housekeeper, waitress, bartender's assistant and babysitter is an interesting finding which may reflect an attempt by the networks to deal with earlier criticism.

Time on and satisfaction with the job. There was no information for the majority of characters about the amount of time spent at a job. Full-time was the norm (37.5%) but that often was inferred by the coders rather than explicitly stated in the show. Occasional or part-time work was depicted for only 6.9% of the characters.

Messages about job satisfaction were not often presented, but when they were, the majority of characters expressed high or very high levels of job satisfaction. A small minority of characters was portrayed as low or very low in job satisfaction.

Men and women and work. Slightly more males and fewer females were professionals/executives/owners, police/detectives/military, and criminals. Conversely, there were slightly more females than males in white collar

non-managerial and working class jobs. There was no sex difference in the numbers portrayed as artist/writer/actor/musician. Fewer males than females were coded as having no information about job, again giving the impression that jobs are more important for men, and buttressing the fact that the jobs men did have are the "more important ones" in terms of prestige, money, and power.

Role conflict. Women are taking on more occupational roles both in the real world and on TV. TV provides little information, however, about the conflict women experience over their multiple roles as paid worker, mother, homemaker, and wife. Of the 41 characters for whom job and home roles could have been portrayed as sometimes in conflict, only 5 characters were coded as experiencing minor conflict and 1 as experiencing major conflict. In general then, neither employed males nor females tend to be shown experiencing role-related conflict. Recall that fathers as well as mothers were portrayed as having a major focus on their home/family life. There would seem to be, on television, always enough time and energy to work at a full-time job, nurture children, mediate arguments, keep a spotless home, and look terrific. This may be part of the reason our coders found family life to be portrayed more often as unrealistic than as realistic (the other primary reason they cited was lack of interpersonal conflict among family members).

Occupational goal. There were very few instances of characters indicating future plans for a career. The entire process of making vocational decisions is not modelled in these popular programs, even though it is central to young viewers' lives. When they were depicted, goals tended to be somewhat nebulous: "a higher level job", "any job one can get on one's own", "improve the world", "work for a computer company" "star". This vagueness leaves young viewers uninformed about how to go about deciding what they'd like to be

when they grow up.

Unemployment. There were ten programs (20% of the sample) that had some discussion, portrayal, or both about unemployment. In addition, three shows contained passing references to the unemployed or unemployment. Given the number of unemployed youths in the U.S., particularly in some regions and among some minority groups, it seems appropriate and important that young viewers be exposed to the issues and consider the implications for their own employment futures.

Drug Use and Abuse on TV

In general, the problems of drug abuse discussed in the U.S.A. received relatively little attention in these programs popular with children and teens. Characters were rarely shown consuming prescription or illegal drugs, alcohol, or tobacco. We developed a sophisticated set of questionnaires, one for each drug, and found that they were almost never used. The use of drugs occurred so rarely that we could not assess the reliability of our coders' judgments for the instances in which it did occur, so caution is necessary in interpreting these results.

Among the characters coded individually because they were central to the main plot and/or central to a sub-plot involving education-related messages, only three were shown smoking cigarettes. Each of these characters also consumed alcohol. All three occurred in 1985 Category B programs. There was no instance of an individually coded character using tobacco in the 1986 sample and no cases of illegal drug use. Two individually coded characters used prescription drugs and one abused them. Of the 160 individually coded characters, 16 consumed alcohol and two more were portrayed as abusing alcohol. These results are based on the questions coders answered for each character they coded individually. In addition, they filled out a drug use

questionnaire for each of the four types of drug portrayed or referred to in the program. These questionnaires picked up additional instances of drug-related messages, including use by background characters and references to drugs. Where possible, the messages associated with drug use were evaluated, but often there was insufficient information to do so.

There were only two programs in which illegal drug use was portrayed and another in which it was referred to (all three were Category B programs). In all three programs the illegal drug use was central to the plot. Illegal drug use was portrayed as glamorous/cool in one case, unglamorous/uncool in another, and the third provided insufficient information about this dimension. The bottom line message in one program was that illegal drugs are unacceptable. The others provided insufficient information about acceptability.

Alcohol was the drug most often referred to or portrayed, but rarely as central to the plot. For the 51 programs, references to alcohol occurred in 11 (4 or 13.8% of Category A programs and 7 or 31.8% of Category B programs). Portrayals of alcohol use occurred in 9 programs (2 or 6.9% for Category A versus 7 or 31.8% for Category B). "No comment" use of alcohol occurred in a total of 10 programs; in 4 of these cases, several times. Alcohol use was portrayed as glamorous/cool in 9 programs, neutrally or as mixed cool/uncool in 2 programs, and as unglamorous/uncool in 1 program. The bottom-line message regarding alcohol use was clearly acceptable in 5 programs, mixed in 6, and clearly unacceptable in 1.

Tobacco use was portrayed in 6 programs and referred to in 1 more. Two of the portrayals were in Category A programs; one carried a clearly unacceptable message and the other an acceptable one; the Category B portrayals also were mixed (2 acceptable, 1 mixed, 2 unacceptable). Tobacco use was portrayed as glamorous/cool in 4 programs and uncool in 1. Tobacco use always was

incidental to the plot.

Prescription drug use was portrayed in one program and referred to in 4 others (one reference was Category A, the remainder and the portrayal were Category B). Two of these instances provided insufficient information to code and the other two indicated prescription drugs were unglamorous/uncool.

With the exception of prescription drugs, there was often not enough information conveyed to determine harmful versus helpful effects to the drug user. When there were messages, however, tobacco use was portrayed as both possibly helpful and definitely harmful; alcohol use was mostly portrayed as possibly harmful, then neutral or mixed, and finally, sometimes as definitely helpful; illegal drugs were definitely harmful; and prescription drugs were portrayed (one instance each) as definitely helpful, neutral or mixed, possibly harmful, and definitely harmful.

Presentations of drug use, again, often did not provide enough information to determine the effects of drug use on others. When there were messages, alcohol was portrayed as both definitely helpful and possibly harmful; prescription drugs were portrayed as both neutral or mixed and possibly harmful; and illegal drugs as definitely harmful.

On the one hand, these results suggest that drug use is portrayed and referred to in a variety of ways on television, some positive and some negative. On the other hand, what has been most revealing to us is not how these programs popular with children and teens portray drug use, but how little information they present on a topic of considerable interest and importance to young people. Finally, although the comparisons are based on very small numbers, these results tend to confirm rather than disconfirm our conclusion that there are two distinct categories of TV programs among those most popular with children and teens in the U.S.

Open-Ended Questions

The end of the coding sheet for the program as a whole provides the coder with the opportunity to write down important messages conveyed that were not tied to specific questions answered earlier in the coding sheet. Thirteen categories were provided, chosen because they seemed potentially important for the purposes of this project. They were education, occupations, families, complexity of issues, social consciousness, elementary school aged children, teens, parents, teachers, schools, jobs, students, and other. It is difficult to do justice to the variety and quality of messages conveyed. We shall try to summarize them by highlighting the most frequent and salient themes. This summary is based on both the 51 programs in the basic sample and the 22 additional programs coded for the multiple episode analyses. All of the latter programs would be categorized as having focused at least in part on education. Moreover, only one of the individual messages summarized below arose from a Category B program. This is therefore a summary of the kinds of messages provided by Category A programs.

Messages about families (including parents) occurred most often. The major theme was that families are very important, supportive, caring, and understanding. Parents care a lot about their children and are involved with them. Communication between parents and children is very important.

The major message about education conveyed by these Category A programs was that studying and working hard are important. They lead to success (good marks) which leads to opportunities (college, university, jobs). Some programs portray good marks positively (e.g., they impress the opposite sex), but the message that studying and doing well in school can hamper social life also is sometimes conveyed For example, one Cosby program centered on character who made studying a priority for Saturday. He did so because of his

desire to get good marks and impress his girlfriend. A Facts of Life program potrayed a female college student who had a late night job but still studied afterward. It was important to her not to let her job responsibilities interfere with her success in college. Another young woman was willing to let her academic responsibilities slide. A minor sub-plot of a Mr. Belvedere program portrayed going to university as a positive goal, but difficult to achieve because good marks are necessary. If you don't get in because your marks aren't high enough, the solution is to study harder. Two students (a male and female) in a Gimme a Break program both loved science and wore glasses. They were considered square and boring by others. In a Webster episode a woman in her forties was very excited about going back to school. Her elementary school-aged son and his friend didn't understand this because they hated school.

Open-ended comments regarding jobs/occupations were so varied that no unifying theme could be discerned.

The coders noted quite a few messages about teenagers, many of which echoed the evidence discussed earlier that romance and sex are major themes in programs popular with children and teens. Relationships were described in the open-ended comments as the most important thing for teens. Popularity and a good social life are priorities. Dealing with peer pressure regarding sex is difficult. Friends pressure each other to have sex. Parents are concerned about this but have a hard time discussing sex with their children. They don't, however, legislate against having sex. Instead, they try to provide support, understand their children's difficulties, and help them make their own decisions. Parents may start off as negative about sex, refusing to discuss it, but they eventually come round to helping their teens obtain information to make their own informed decisions. Parents are portrayed with

an authoritative parenting style with regard to sex as well as other matters.

Finally, an open-ended question in the middle of the coding sheet asked whether there were any messages regarding the influence of relationships on educational or vocational aspirations. There were very few such messages in Category B programs, with no general theme. For the Category A programs, more than 3/4 of the messages concerning the influence of relationships on aspirations dealt with women. There were two general themes. The first was that women are very supportive and encouraging. They act as close mentors for one another, have warm bonds with female friends, and are especially encouraging and empathic to friends entering the workforce. Male bosses in these shows put women down and call them incompetent. The underlying message seems to be that women need to stick together and help one another when in the "working world of men". The second important theme regarding relationships and aspirations was that women manipulate others to further their careers. The underlying message seems to be that women know that men in the male dominated workforce view them as inferior and incompetent, so in order to progress, they must manipulate their bosses, for example, by playing a role the men enjoy, such as sex object.

In sum, the comments made by coders in response to the open-ended questions support the impression given by the more structured questions. Many of the programs popular with children and teens, in particular those we have placed in Category A, seem to be making a conscientious effort to impart messages to children and teens about a number of important issues in their lives, including education. Moreover, they do so responsibly, on the whole. The striking exception, as was the case for the structured part of the questionnaire, was in the portrayal of females and gender roles.

Conclusions

Both the educational literature and theories regarding the influence of television reviewed in the introduction indicate that TV has the potential to influence educational and vocational motivations and aspirations, and via these avenues, achievement. This influence could be either positive or negative, depending on the nature of the messages conveyed. The purpose of this project was to ascertain what messages are being conveyed by the prime-time programs most popular with children and teens in the U.S.A. What conclusions can be drawn from these content analyses?

Both critics and supporters of television often discuss its pros and cons, but neither its content nor its uses nor its effects should be described simplistically. Just as TV as a whole is not a monolith, programs popular with children and teens are not homogeneous. Our analyses of the content of these popular programs point convincingly to the conclusion that they are comprised of two distinct subgroups. One, which we have called Category A, contains programs in which the producers seem to be making a conscious effort to include some content of special interest to and with potential benefit for children and teens. This includes but is not limited to messages concerning educational and vocational motivations and aspirations and ultimately, achievement. They also seem to be responsive to some of the negative criticisms of television, for example, by limiting the amount of violence and physical aggression in these programs. Producers of Category B programs must be equally aware that their programs are popular with children and/or teens, since many programs popular in 1985 were still on the air in 1986-87. There is little, if any, evidence, however, of attempts to deal with education and related topics in these programs. They also contain a good deal of physical aggression and violence. Some of these programs (e.g. Moonlighting) are aired

later in prime-time and, although popular with teenagers, are aimed primarily at adults and not popular with children. Others, however, are aired early in prime-time and popular with children but not teens or adults (e.g., A-Team). It is difficult to imagine justification for their content, other than that it makes money. Since Category A programs with more responsible content also make money, however, this justification seems hollow.

Our conclusions are twofold. On the one hand, we are very impressed by much of the content of Category A programs. The producers and networks deserve credit for their efforts. When education is dealt with on TV it is almost always dealt with responsibly and well. On the other hand, we are disappointed in several ways. First, as mentioned, many Category B programs have less redeeming value than one might hope. Second, even when education is dealt with in Category A programs, it often is incidental to the plot. It is clear that dealing with educational matters does not detract from program popularity. The most popular programs not in school settings (e.g., Cosby, Family Ties, Facts of Life) quite regularly contain messages about education, and often these are central to the plot. Moreover, a program in a school setting (Head of the Class) became popular in its first season. The fact that two additional programs have appeared since then may reflect a promising trend from the persective of messages about education. Third, our review of the educational literature points to many topics importantly related to educational and vocational attainment that could be dealt with in programs popular with children and teens, but are not. This includes information about educational and occupational planning and choices. Fourth, the content of these popular programs in several areas means they are unlikely to be a positive force for change in the U.S. toward the egalitarian society it hopes to be. In particular, the emphasis on middle to upper class lifestyles and

materialism is likely to limit the positive impact messages about education could have on lower SES youth. The ways in which ethnic minorities are portrayed also may limit the potentially positive impact these programs could have on minority children. Finally, the ways in which females and males are portrayed, even in Category A programs, are likely to perpetuate rather than ameliorate inequities between women and men. As long as television produces programming which implies that educational and occupational concerns are more important for the middle and upper classes, for mainstream non-ethnics, and for men, and that marital status and relationships are more important for women, young children will continue to use those models to formulate schemata which limit rather than expand their educational and vocational goals.

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Table 1

Program Sample

1985 Sample

A. Popular with children only
- Misfits of Science
- A Team
- Knight Rider
- Silver Spoons
- Diff'rent Strokes
- Punky Brewster

B. Popular with teens only
- Miami Vice
- Kate & Allie
- Moonlighting
- Cheers

C. Popular with both
- Bill Cosby Show
- Family Ties
- Facts of Life
- Golden Girls
- Who's the Boss?
- Growing Pains
- 227
- Gimme A Break
- Mr. Belvedere
- MacGyver
- Webster
- Amazing Stories
- Alfred Hitchcock Presents

1986 Sample

A. Popular with children only
- Sledgehammer
- A Team
- Sidekicks
- Heart of the City
- Webster

B. Popular with teens only
- Miami Vice
- Kate & Allie
- Moonlighting
- Cheers
- Valerie
- Easy Street

C. Popular with both
- Bill Cosby Show
- Family Ties
- Facts of Life
- Golden Girls
- Who's the Boss?
- Growing Pains
- 227
- Alf
- Perfect Strangers
- Amen
- Head of the Class

D. Popular in '85, not in '86
- Gimme A Break
- Knight Rider
- Silver Spoons
- Diff'rent Strokes
- MacGyver
- Mr. Belvedere

Multiple Episode Sample, 1986

- Cosby (6 episodes)
- Facts of Life (6 episodes)
- Family Ties (6 episodes)
- Head of the Class (5 episodes)
- Bronx Zoo (3 episodes)
- Roomies (3 episodes)

Table 2

Category A: Programs Focused in Part on Education

	Young Central Characters[a]	Focus on Learning[b]	Focus on Education[c]	Central Character in Parent Role[d]
1985				
227	-	-	-	+
Amazing Stories	+	-	+	-
Cosby	+	+	-	+
Diff'rent Strokes	+	+	+	-
Facts of Life	+	+	+	-
Family Ties	-	+	+	-
Gimme a Break	+	-	+	-
Growing Pains	+	+	+	+
Kate & Allie	-	-	+	+
Misfits of Science	+	+	+	+
Mr. Belvedere	-	+	-	+
Punky Brewster	+	+	-	+
Webster	+	+	+	+
Who's the Boss	+	-	+	+
1986				
227	+	+	+	+
Alf	+	+	+	+
Cosby	+	+	+	+
Diff'rent Strokes	+	+	-	+
Facts of Life	+	+	+	-
Family Ties	+	-	+	-
Gimme a Break	-	+	+	+
Growing Pains	+	+	+	+
Head of Class	+	+	+	-
Kate & Allie	-	+	+	+
Mr. Belvedere	+	+	+	+
Sidekicks	+	+	+	+
Valerie	+	+	+	+
Webster	+	+	+	+
Who's the Boss	+	+	+	+
Proportion of programs with each characteristic:	79.3%	79.3%	82.8%	72.4%

Category B: Programs not Focused on Education

	Young Central Characters[a]	Focus on Learning[b]	Focus on Education[c]	Central Character in Parent Role[d]
1985				
A-Team	+	-	-	+
Cheers	-	-	-	-
Golden Girls	-	-	-	-
Hitchcock	-	-	-	-
Knight Rider	-	-	-	-
MacGyver	-	+	-	-
Miami Vice	-	-	-	-
Moonlighting	-	-	-	-
Silver Spoons	+	-	-	+
1986				
Amen	-	+	-	-
A-Team	-	-	-	-
Cheers	-	-	-	-
Easy Street	-	-	-	-
Golden Girls	-	+	-	+
Heart of the City	-	-	-	+
Knight Rider	-	-	+	-
MacGyver	-	-	-	-
Miami Vice	-	-	-	-
Moonlighting	-	-	-	-
Perfect Strangers	-	-	-	-
Silver Spoons	+	-	-	+
Sledgehammer	-	-	-	-
Proportion of programs with each characteristic:	13.6%	13.6%	4.5%	22.7%

Footnotes:
[a] + means at least one of the central characters coded individually was of university age or younger.
[b] + means more than half the program was focused on learning in a broad, general sense.
[c] + means there was some mention in the program of education (from passing reference to major focus)
[d] + means at least one of the central characters coded individually acted in a parent-like role.

Table 3

Comparison of Programs Focused in Part on Education versus those not Focused on Education: Data from the Education Project for both 1985 and 1986-87 Samples

	Focus on Education	
	Some	None
Number of Programs	29	22
Program type		
Sitcom or other comedy	93.1%	45.5%
police/detective/crime or other action adventure	6.9	54.5
$\chi^2(1) = 14.26$, $p < .0002$		
Focus on learning in the broad sense		
none or less than 1/2	20.7	63.6
50-50	10.3	22.7
more than 1/2	69.0	13.6
$\chi^2(1)$ for < 1/2 vs. 50-50 or more = 9.68, $p < .002$		
Unemployment		
reference	31.0	18.2
no reference	69.0	81.8
ns		
Messages regarding SES and educational/vocational success		
none	64.7	86.4
one or more	35.3	13.6
ns		
Materialism		
Explicit materialism of the program		
anti-materialistic	0.0	0.0
not materialistic	3.4	9.1
very materialistic	72.4	72.7
both anti and very	6.9	0.0
no explicit information	17.2	18.2
ns		
Implicit materialism of the program		
anti-materialistic	0.0	0.0
not materialistic	6.9	9.1
very materialistic	93.1	86.4
not applicable	0.0	4.5
ns		
Religion - any portrayal or comments?		
no	79.3	72.7
yes	20.7	27.3
ns		

Ethnic Minorities		
Ethnic minorities among the characters coded individually?		
yes	62.1%	27.3%
$\chi^2(1) = 6.08$, $p < .014$		
The prominent characters in the program were:		
all non-ethnic	37.9%	36.4%
mostly non-ethnic	41.4	50.0
even mix or more ethnics	20.7	13.6
ns		
The background characters in the program were:		
all non-ethnic	40.7	25.0
mostly non-ethnic	37.0	55.0
even mix or more ethnics	22.2	20.0
ns		
The powerful/authoritative/knowledgeable characters were:		
all non-ethnic	48.3	42.9
mostly non-ethnic	24.1	42.9
even mix or more ethnics	27.6	14.3
Prejudice (portrayal or reference)		
none	62.1	63.6
prejudice as unacceptable	20.7	31.8
prejudice as acceptable	13.8	4.5
both acceptable and unacceptable	3.4	0.0
ns		
Gender		
The prominent characters in the program were:		
all or mostly male	51.7%	77.3%
even mix or more females	48.3	22.7
ns		
The background characters in the program were:		
all or mostly male	42.9	57.1
even mix	25.0	38.1
all or mostly female	32.1	4.8
ns		
The powerful/authoritative/knowledgeable characters were:		
all or mostly male	58.6	81.8
even mix	24.1	4.5
all or mostly female	17.2	13.6
ns (for three categories and for first versus last two combined)		
Equality of ability/potential of the sexes (outside classroom)		
very unequal	3.4	0.0
more equal	55.2	72.7
no information	41.4	27.3
ns		
Portrayal of or reference to traditional division of domestic labor		
no	34.5	86.4
yes	65.5	13.6
$\chi^2(1) = 13.73$, $p < .0002$		
If yes, was the portrayal		
negative	0.0	too
mixed	31.6	few
positive	68.4	cases

Portrayal of or reference to non-traditional division of domestic labor		
no	62.1	86.4
yes	37.9	13.6
$\chi^2(1) = 3.71$, $p = .055$		
If yes, was the portrayal		
negative	0.0	two
mixed	27.3	few
positive	72.7	cases
Were any females portrayed in a sex-stereotyped way?		
none	3.4	4.5
some	58.6	68.2
many	37.9	27.3
ns		
If so, was the associated message		
negative	0.0	9.1
mixed or positive	96.6	86.4
not enough information	3.4	4.5
ns		
Were any females portrayed in counter-stereotyped way?		
none or few	96.6	95.5
many	3.4	4.5
ns		
If so, was the associated message		
negative	11.1	0.0
mixed or positive	88.9	100.0
ns		
Were any males portrayed in a sex-stereotyped way?		
no	10.3	4.5
yes	89.7	95.5
ns		
If so, was the associated message		
negative	0.0	14.3
mixed or positive	100.0	85.7
ns		
Were any males portrayed in a counter-stereotyped way?		
none or few	100.0	100.0
many	0.0	0.0
If so, was the associated message		
negative	0.0	14.3
mixed or positive	100.0	85.7

Table 4

Comparison of Programs Focused in Part on Education With Those Not Focused on Education: Data from the Original Project for the 1985 Sample

	Focus on Education	
	Some	None
Number of Programs	14	9
Age: at least 1 character in the program was a:		
child	71.4%	11.1%
$\chi^2(1) = 5.75$, $p < .02$		
teenager	85.7	44.4
ns		
mature adult	42.9	44.4
ns		
old adult	14.3	33.3
ns		
Rich and Famous - extent to which the program focused on them		
somewhat	14.3	55.6
not at all	85.7	44.4
ns		
Ethnic minorities - any in program?		
yes	85.7	66.7
ns		
Problems dealt with in the program		
none	0.0	0.0
minor	78.6	33.3
major	21.4	66.7
ns		
Sex - portrayal or reference		
none	71.4	77.8
some	28.6	22.2
ns		
Romance - portrayal or reference		
none	42.9	55.6
some	57.1	44.4
ns		
Females or males portrayed as sex objects		
no	50.0	55.6
yes	50.0	44.4
ns		
Sexist comments regarding females portrayed as acceptable		
yes	21.4	11.1
ns		
Sexist comments regarding males portrayed as acceptable		
yes	7.1	0.0
ns		
Was the world portrayed as a dangerous place?		
no	50.0	44.4
somewhat	50.0	11.1
very	0.0	44.4
$\chi^2(2) = 8.64$, $p < .015$		

Table 5

Focus on Education over Multiple Episodes of Program Series, Based on TV Guide Descriptions

	Total Number of Episodes	Number of Episode Descriptions with: Clear Mention of Education	Uncertain	No mention of Education
Programs in Category Having Some Educational Focus				
Alf	6	2	1	3
Amazing Stories*				
Cosby Show	9	2	0	7
Diff'rent Strokes*				
Facts of Life	6	3	0	3
Family Ties	6	4	0	2
Gimme a Break	6	0	0	6
Growing Pains	6	2	2	2
Head of the Class	6	6	0	0
Kate & Allie	6	0	0	6
Misfits of Science*				
Mr. Belvedere	6	1	1	4
Punky Brewster*				
227	6	0	0	6
Sidekicks	4	1	1	2
Valerie	6	0	0	6
Webster	6	2	0	4
Who's the Boss	6	0	0	6
Proportion of programs in each category:		27.1%	5.9%	67.1%
Programs in category having no educational focus				
A-Team	3	0	0	3
Alfred Hitchock*				
Amen	5	0	0	5
Cheers	6	0	0	6
Easy Street	6	0	0	6
Golden Girls	6	0	0	6
Heart of the City	4	0	0	4
Knight Rider*				
MacGyver	6	0	0	6
Miami Vice	6	0	0	6
Moonlighting	6	1	0	5
Perfect Strangers	6	0	0	6
Silver Spoons	6	1	1	4
Sledgehammer	6	0	0	6
Proportion of programs in each category:		3.0%	1.5%	95.5%

Notes: *This program was not listed in TV Guide in Spring, 1987.

Death - reference or portrayal		
yes	7.1	66.7
$X^2(1) = 6.57$, $p < .015$		
Real guns shown		
yes	14.3	66.7
$X^2(1) = 4.52$, $p < .035$		
Violence portrayed		
yes	7.1	55.6
$X^2(1) = 4.38$, $p < .04$		
Physical aggression portrayed		
yes	14.3	66.7
$X^2(1) = 4.52$, $p < .035$		
Verbal aggression portrayed		
yes	84.6	100.0